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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WERNER, DAVID N

ART UNIT

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2621

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/765,813	Applicant(s) RAMAKRISHNAN, LAKSHMANAN	
	Examiner David N. Werner	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-12 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action for US Patent Application 10/765,813 is responsive to the Request for Continued Examination filed 10 November 2008, in reply to the Final Rejection of 08 August 2008. Currently, claims 9-12 and 20 are pending.
2. In the previous Office action, claims 9-12 and 20 were rejected under 35 U.S.C. 102(e) as anticipated by US 7,007,031 B2 (MacInnis et al.). The title was objected to as not descriptive of the invention.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 November 2008 has been entered.

Response to Arguments

4. Applicant's arguments filed with respect to claim 9 have been fully considered but they are not persuasive. Applicant states that in the present invention, "compressed video data" is stored in the local buffer, whereas in MacInnis et al., only "processed" data is stored in a memory element. However, MacInnis et al., in column 7: lines 42–

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46, recites: "According to an illustrative embodiment of the present invention, each incoming data unit **to be decoded** is assigned one of the data unit buffers. The header portion and the data portion of the unit are **initially stored** in the buffer assigned to that data unit" (emphasis added). It is respectfully submitted that the data "initially stored" in the buffer that is "to be decoded" is the claimed "portion of compressed video data". Therefore, the rejection of the claims as anticipated by MacInnis et al. is proper.

Claim Rejections - 35 USC § 102

5. Claims 9-12 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 7,007,031 B2 (MacInnis et al.).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

MacInnis et al. discloses a memory system and a pipeline for a video decoder. Regarding claim 9, figure 2 of MacInnis et al. illustrates a media decoding system that can be used as a video decoder (column 5: lines 20–22). Decoder memory 212 locally stores a data unit containing coded macroblock information from main memory (column 6: lines 1-14) in a buffer unit within the memory (column 7: lines 42–46). Then, decoder memory 212 containing the array of buffers that store portions of the coded data

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(column 7: lines 9–41) is the claimed "local buffer for storing a portion of compressed video data". When decoding system 200 acts as a video decoder, core processor 202, co-processor 206, and accelerators 208 and 210 comprise a chipset that performs picture decoding and decompressing (column 6: lines 15–20). These components access the data stored in memory 212 (column 6: lines 52–64). Then, decoder 200 is the claimed "decompression engine". Bridge module 204 communicates with the local decoder memory 212 and main memory 110, according to instructions from core processor 202 (column 6: lines 46–51). Then, the bridge module is the claimed "extractor". The bridge module acts to fetch data from main memory into a pipelined data processing system including local decoder memory 212 (column 6: lines 4–14) when a buffer memory has output a previous macroblock and is free to receive an additional compressed macroblock for decoding (column 11: line 63–column 12: line 7). Then, the fetch instruction, indicating that the buffer is open, is the claimed "indicator" that allows new data to overwrite current data in the buffer.

Regarding claim 10, as shown in figure 1 of MacInnis et al., DMA controller 106 controls data transfer between system memory 110 and a local memory in video decoder 116 (column 4: lines 57–4). Then, when core processor 202 in video decoder 116 issues a command to read from system memory 110 to local memory 212 through bridge module 204, it inherently does so through DMA controller 116.

Regarding claim 11, core processor 202 acts to direct a pipeline, individually receiving and extracting compressed data from macroblocks one at a time and storing them in local memory 212. The local memory, in turn, contains a plurality of buffers that

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each store information for one macroblock between operations (column 7: lines 20–41). In the illustrative example described throughout MacInnis et al., five buffers each store macroblock data during processing. When a buffer becomes free, core processor 202 stores a new macroblock to continue decoding (column 16: lines 15–35).

Regarding claim 12, as mentioned previously, local memory 212 contains a plurality of buffers, each of which can store data for a different macroblock simultaneously, and co-processor 206 contains two separate units that can simultaneously decode different macroblocks (column 13: lines 26–35).

Regarding claim 20, digital media system 100 of MacInnis et al. is the claimed "decoder system", digital video decoder 116 is the claimed "video decoder", decoder memory 212 is the claimed "local buffer", bridge 204 is the claimed "extractor", and DMA controller 106 is the claimed "direct memory access engine".

Conclusion

6. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Werner whose telephone number is (571)272-9662. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. N. W./

Examiner, Art Unit 2621

/Mehrdad Dastouri/

Supervisory Patent Examiner, Art Unit 2621